Purpose and Applicability of Regulations

All manufacturers are required to supply a safe source of drinking water to their employees that is free from microbial and chemical contamination. Also, many manufacturing activities require safe, potable water for their processes (such as in the food industry). Most small businesses in Indiana are customers of a public water system through connection to a municipal or community water system. However, those facilities that supply their own water from a well or surface water source are public water systems (called noncommunity water supplies) and must meet certain drinking water standards. Additionally, these water supplies must meet construction and sampling requirements. They must also meet both state and local ordinances regarding cross connection control measures.

Agencies and Their Laws and Rules

The federal Safe Drinking Water Act, as amended on August 6, 1996, can be found in Title 42, Sections 300f–300j-26 of the United States Code. It is available online at www.gpoaccess.gov/uscode/index.html.

The applicable state rule can be found in Title 327, Article 8, Rule 2 of the Indiana Administrative Code (327 IAC 8-2). It is available online at www.legislative.IN.gov/iac/title327.html.

Types of Public Water Systems

A public water system is a system that provides water to the public for consumption, if the system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. If you make water available for human consumption or for use at bathroom sinks and you do not obtain water from a water utility, you most likely are a public water system subject to safe drinking water standards and regulations. However, if your business or organization gets its water from a water utility, you would be considered to be a customer of that system and therefore exempted from drinking water regulations. A public water system may be publicly or privately owned or operated, and is either a community water system or a noncommunity water system. Both nontransient and transient water systems are considered noncommunity water systems.

Chapter **9**

Drinking Water

IDEM's Drinking Water Branch is responsible for regulating the following types of public water systems:

- A community water system serves 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Examples include municipal water systems and mobile home parks. Source water for community supplies may be obtained from treating surface water or from ground water wells.

  There are numerous water sampling requirements for various contaminants, as well as operator certification and reporting mandates. A small business that is a customer of a municipal or community water system may have obligations regarding cross connection control. The supplier of water has local jurisdiction regarding this issue; however, there are also state regulations concerning cross connection control.

- Noncommunity water systems are also required to meet drinking water standards and regulations. A noncommunity water system has at least 15 service connections used by nonresidents or regularly serves 25 or more nonresidents daily for at least 60 days per year. Treated surface water meeting safe drinking water standards may also be a source of water for a noncommunity system. Noncommunity supplies fall under two categories:

  - A nontransient noncommunity water system regularly serves the same 25 or more persons at least six months per year. Examples include factories, schools, day care centers or other businesses that employ 25 persons or more.

  - A transient noncommunity water system does not regularly serve the same 25 or more persons at least six months per year. Examples include campgrounds, highway rest areas, churches, medical facilities, restaurants, service stations, motels, and small businesses with fewer than 25 employees.

Sampling requirements are based upon the type of water system (community, nontransient noncommunity, or transient noncommunity) and the sampling frequency is determined by IDEM, based on source water type (ground water or surface water) and population served.

Requirements for Public Water Supplies

Many facilities opt to meet all their drinking water needs by purchasing water from an established public drinking water system. However, some systems will utilize surface or well water as a source of supply, which may require them to obtain a drinking water construction permit from IDEM. In addition, operating an existing system means ongoing compliance with the standards of the Safe Drinking Water Act and could also require working with a local county board of health. Drinking water systems may also need a certified drinking water operator.

Developing and using non-drinking water sources does not require a permit from IDEM. However, any well drawing more than 100,000 gallons of ground water per day must be registered with the Indiana Department of Natural Resources (DNR) within 90 days after the well's pumping equipment has been put into service. For information regarding DNR well water regulations, call (317) 232-0154.

Public water systems that wish to obtain water from wells must have a well-site approval from IDEM's Field Inspection Section. The well must be drilled by a well driller who is licensed by DNR.

A new community or new nontransient noncommunity public water system, built after October 1, 1999, or an existing public water system that expands its infrastructure which results in a change in the classification of the system to a community water supply system or a nontransient noncommunity water supply system must fulfill the requirements of 327 IAC 8-3.6 prior to making a submission to the IDEM commissioner for a permit to construct. If you have any questions, call the Drinking Water Branch at (317) 308-3331 or (800) 451-6027, ext. 308-3331.

FOR MORE INFORMATION

- Public water supply permits
- Capacity development of new public water supply systems

www.idem.IN.gov/4868.htm

Sampling Requirements

A public water supply must not only comply with all the requirements of IDEM's Drinking Water Construction Permit Program, but after construction, the public water supply must continuously comply with all the health-based requirements established in the federal Safe Drinking Water Act.

These rules outline analytical methodologies for sampling, testing, monitoring and reporting on a wide range of contaminants, and establish maximum contaminant levels (MCLs) intended to protect human health. Public water systems are required to stay under the MCLs for a wide range of organic and inorganic compounds, microbiological contaminants, radioactive contaminants, and lead and copper. Rule 2.1 of 327 IAC 8 sets out the various public notice requirements to be met by owners or operators of a public water system which fails to comply with the MCLs.

Community and nontransient noncommunity water supplies must sample for total fecal coliform bacteria, nitrates/nitrites, inorganic chemicals, volatile organic compounds, synthetic organic compounds, lead and copper, and radiological contaminants at frequencies determined by IDEM. They may also be required to sample for other compounds, such as disinfection byproducts, if they are applying disinfectant treatment to the water. The laboratory used by the community or nontransient noncommunity water

system must be certified by the state of Indiana or U.S. EPA for the particular components being tested.

Operator Certification

An operator must be certified in the grade designated by 327 IAC 8-12 if they are in charge of a treatment system or a distribution system at a community water system or a noncommunity water system.

Treatment is defined as a technology that is employed by a public water system for the control of the chemical, physical, biological, or radiological characteristics of the water supply. A distribution system is one that is composed of components through which water is distributed and used for drinking/household purposes. The components may include piping, fixtures, transmission mains, pumps, storage tanks, etc.

All community, nontransient noncommunity water systems, and transient noncommunity public water systems using surface water or ground water under direct influence of surface water, or transient noncommunity public water systems requiring complex treatment, are also required to have a certified operator. The certification by IDEM is based on the operator's qualifications, acceptable hands-on experience and the passage of the certification examination required by the IDEM commissioner, unless exempted by statute or rule.

For more information about community and noncommunity water supply operator certifications, call the Permit, Certification, and Capacity Section of IDEM's Drinking Water Branch at (317) 308-3331 or (800) 451-6027, ext. 308-3331.

Cross Connection Requirements

A cross connection is defined as any physical arrangement whereby a public water supply is connected, directly or indirectly, with any secondary water source, sewer drain, conduit, pool, storage reservoir, plumbing fixture, boilers or other device which contains or may contain any water, contaminated liquid, or other waste of unknown or unsafe quality that could impart a contaminant to the drinking water as a result of backflow or backsiphonage. Backsiphonage is a reverse flow condition, created by difference in water pressures, which causes water to flow back into the distribution pipes of a potable water supply from any source or sources other than an intended source.

Cross connection may cause lethal water borne disease through transmission of contaminants into the drinking water system. A number of diseases are known to be carried by or spread by contaminated water, including typhoid fever, salmonellosis, polio, hepatitis, brucellosis, dysentery, and gastroenteritis. Besides diseases, chemicals from a cross-connection, such as fertilizers, pesticides, and herbicides, could contaminate the water.

An inspection is an easy way to check for cross connections in your water system. IDEM recommends that the inspection be performed by an individual certified in the state of Indiana as a backflow prevention inspector/tester or someone familiar with plumbing and cross connection hazards. If you need a list of active backflow/cross connection testers, please call (317) 308-3300 or (800) 451-6027, ext. 308-3300.

The passage of the federal Safe Drinking Water Act has made public water systems responsible for the quality of water at the consumer's tap. Therefore, all public water systems should maintain an active cross connection control program.

An effective cross connection control program should have:

- A cross connection control ordinance;
- Educational and informative meetings that describe the cross connection control program;
- Routine, systematic inspections of new and existing facilities to the water system; and
- Records on all cross connection control devices.

For More Information

Certification of Water Supply Operators	IDEM – Drinking Water Branch *Permit, Certification, and Capacity Section* (317) 308-3331 or (800) 451-6027, ext. 308-3331 www.idem.IN.gov/5091.htm
Emergency Response	U.S. EPA's Emergency Response Web Site www.epa.gov/oem/index.htm
Hazardous Waste Contingency Plans	IDEM – Office of Land Quality (317) 232-8941 or (800) 451-6027, ext. 2-8941 www.idem.IN.gov/5026.htm
Permitting	IDEM – Drinking Water Branch *Permit, Certification, and Capacity Section* (317) 308-3331 or (800) 451-6027, ext. 308-3331 www.idem.IN.gov/4868.htm
Sampling Requirements and Annual Public Water System Fees	IDEM – Drinking Water Branch *Compliance Section* (317) 308-3283 or (800) 451-6027, ext. 308-3283 www.idem.IN.gov/5093.htm

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